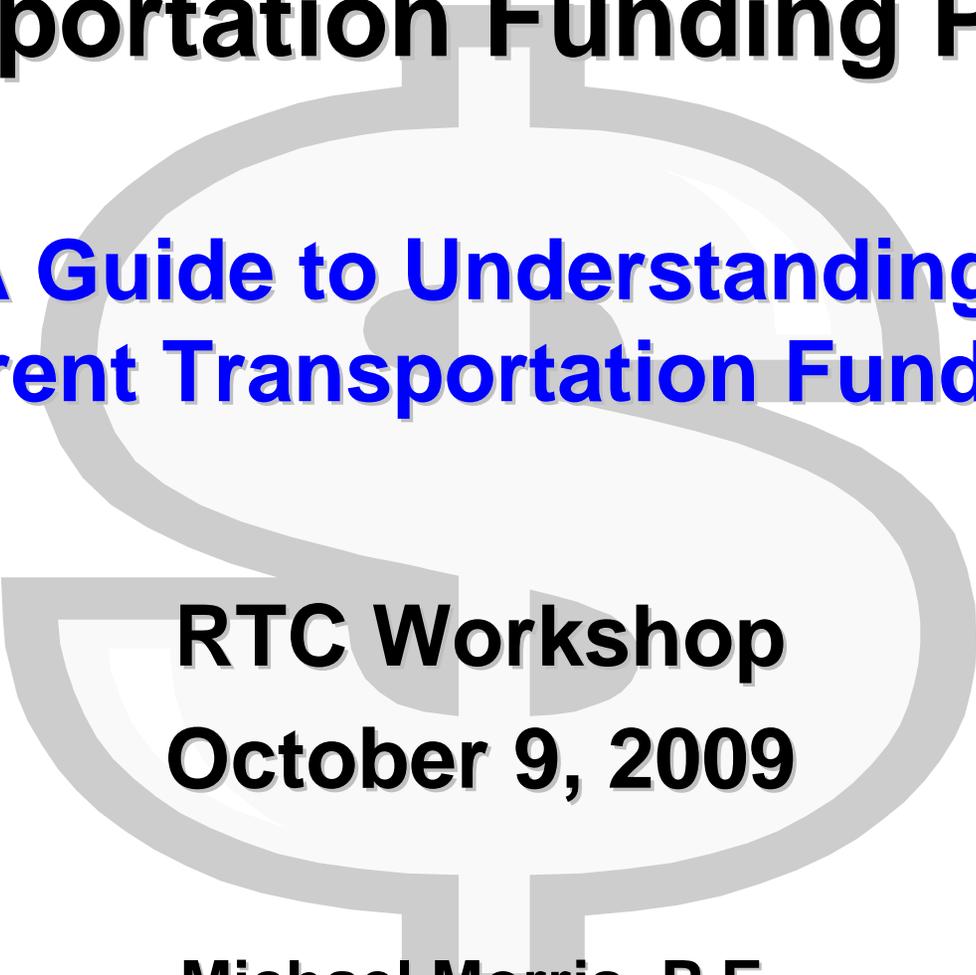


Transportation Funding Primer



A Guide to Understanding Current Transportation Funding

**RTC Workshop
October 9, 2009**

Michael Morris, P.E.

North Central Texas Council of Governments

Background Costs

How much does it cost to...

Add Capacity to an Existing

- Freeway/Tollway: \$4.2 - \$5.3 million per lane mile
- Arterial Road: \$1.0 - \$1.5 million per lane mile

Build Rail

- Light Rail: \$50 - \$60 million per mile
- Regional/Commuter Rail: \$12 - \$20 million per mile
- Rail Station: \$3 - \$10 million
- Park and Ride Lots: \$4 - \$6 thousand per space

Bike/Pedestrian System

- Veloweb (Off Street System): \$1.4 million per mile
- On-Street Routes: \$18 thousand per mile
- Sidewalks: \$15 thousand per mile

Improve an Intersection

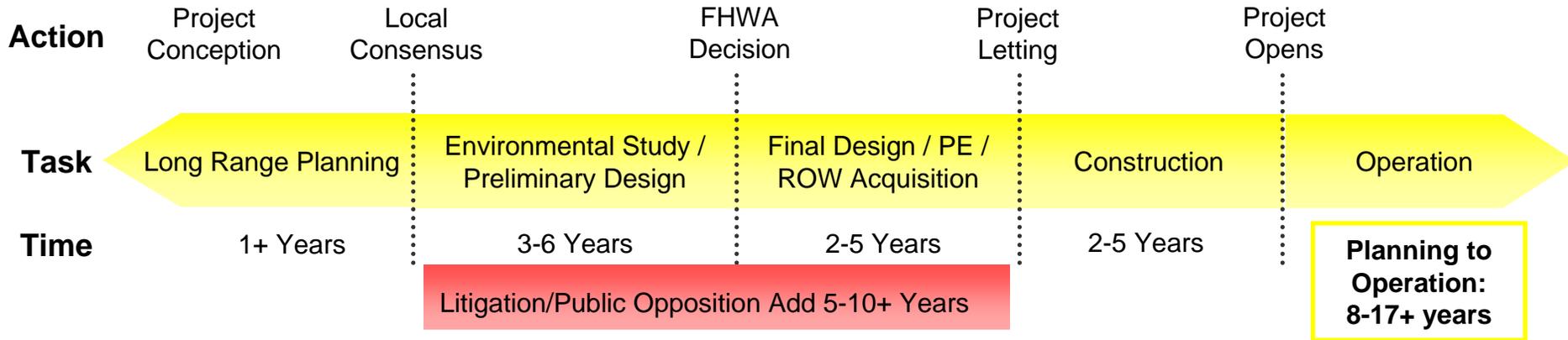
- General Improvements: \$150 - \$200 thousand per turn lane; \$500 - \$600 thousand per intersection
- Install New Signals: \$100 - \$500 thousand
- Signal Timing Optimization: \$5 - \$7 thousand

Note: The listed costs are estimations only. The range of cost vary greatly according to the nature of the design, location and scope of a given project. These estimates do not include the cost for right-of-way or maintenance & operation.

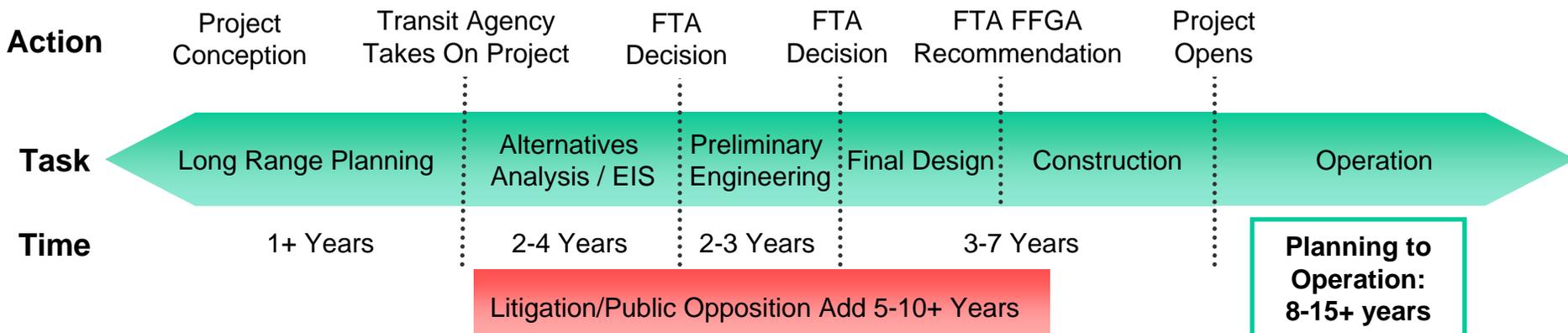
How Did We Get Here?

Project Delivery

Typical Roadway Project Development Process

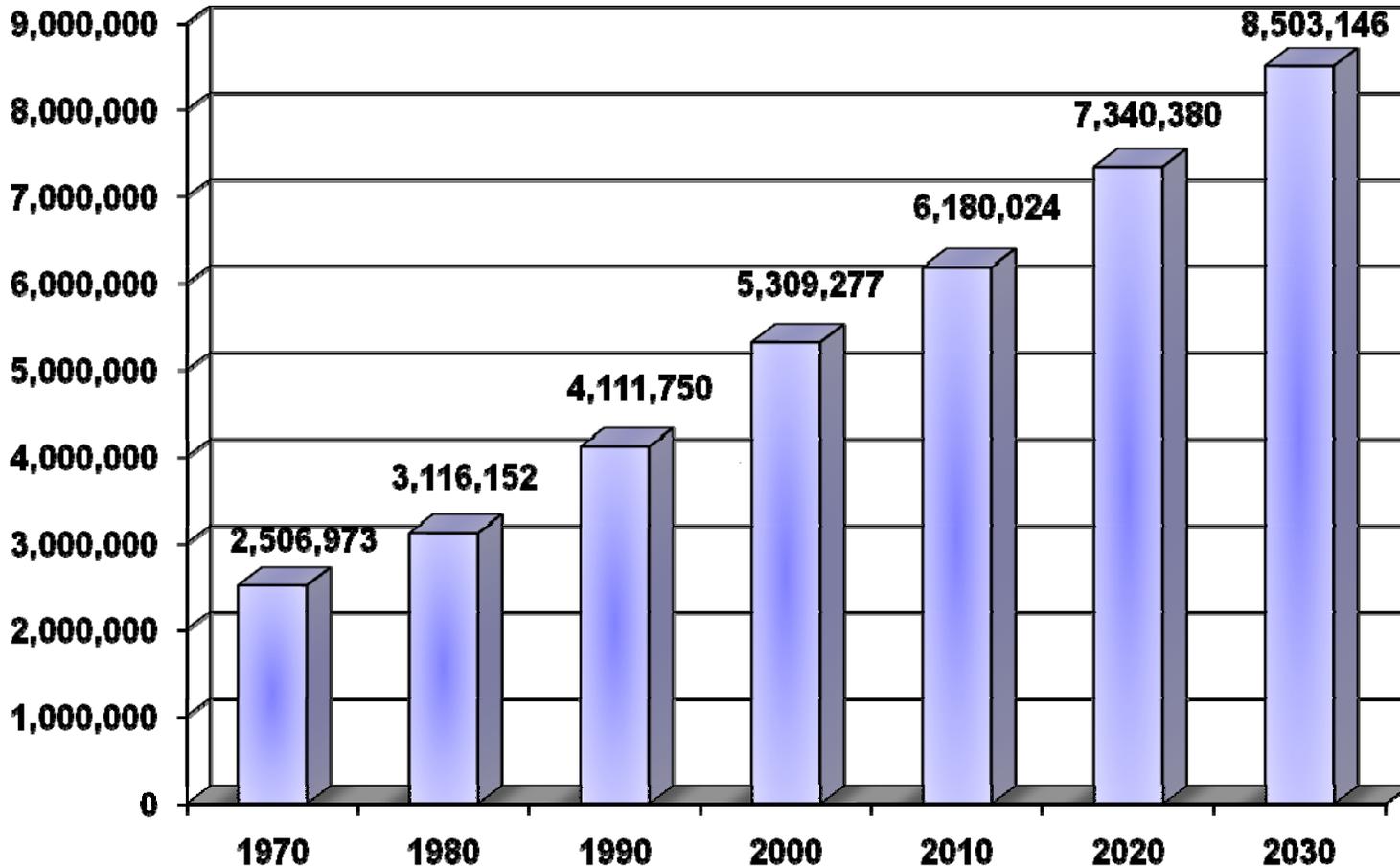


Typical Transit Project Development Process



Background

Regional Population 1970-2030



Absolute Change:
1970-2000: 2,802,304
2000-2030: 3,193,869

Percent Change:
1970-2000: 112%
2000-2030: 60%

Average Decennial Growth:
1970-2000: 934,101
2000-2030: 1,064,623

Background

Regional Perspective

#1 for Population Growth among U.S. Metropolitan Areas during 2008

12th Largest Metropolitan Economy in the World

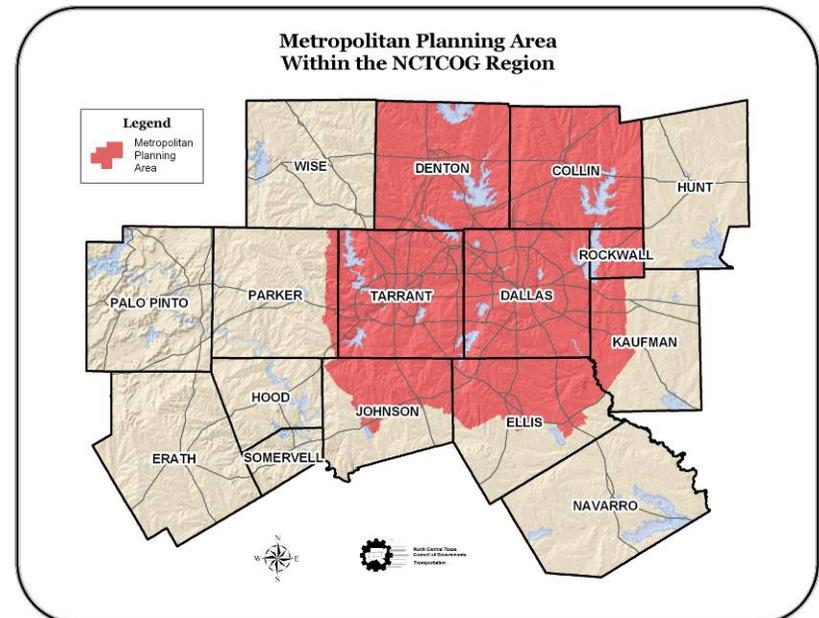
4th Largest Metropolitan Area in the United States

Add One Million Persons Every Seven Years

Represents Over 34 Percent of the State's Economy

6.5 Million Persons in Year 2008

Growing to Nearly 9 Million Persons by the Year 2030

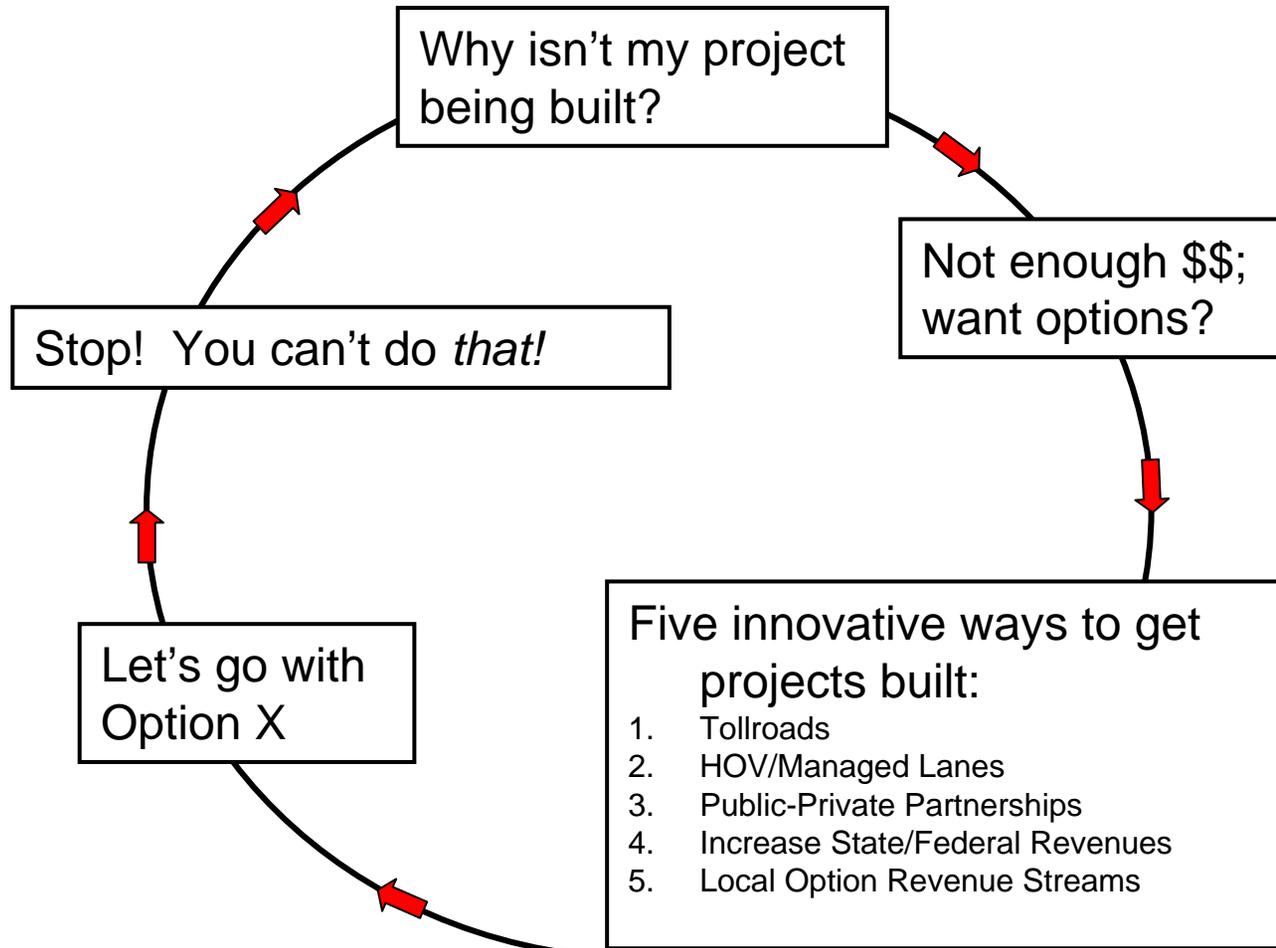


Workshop Goals

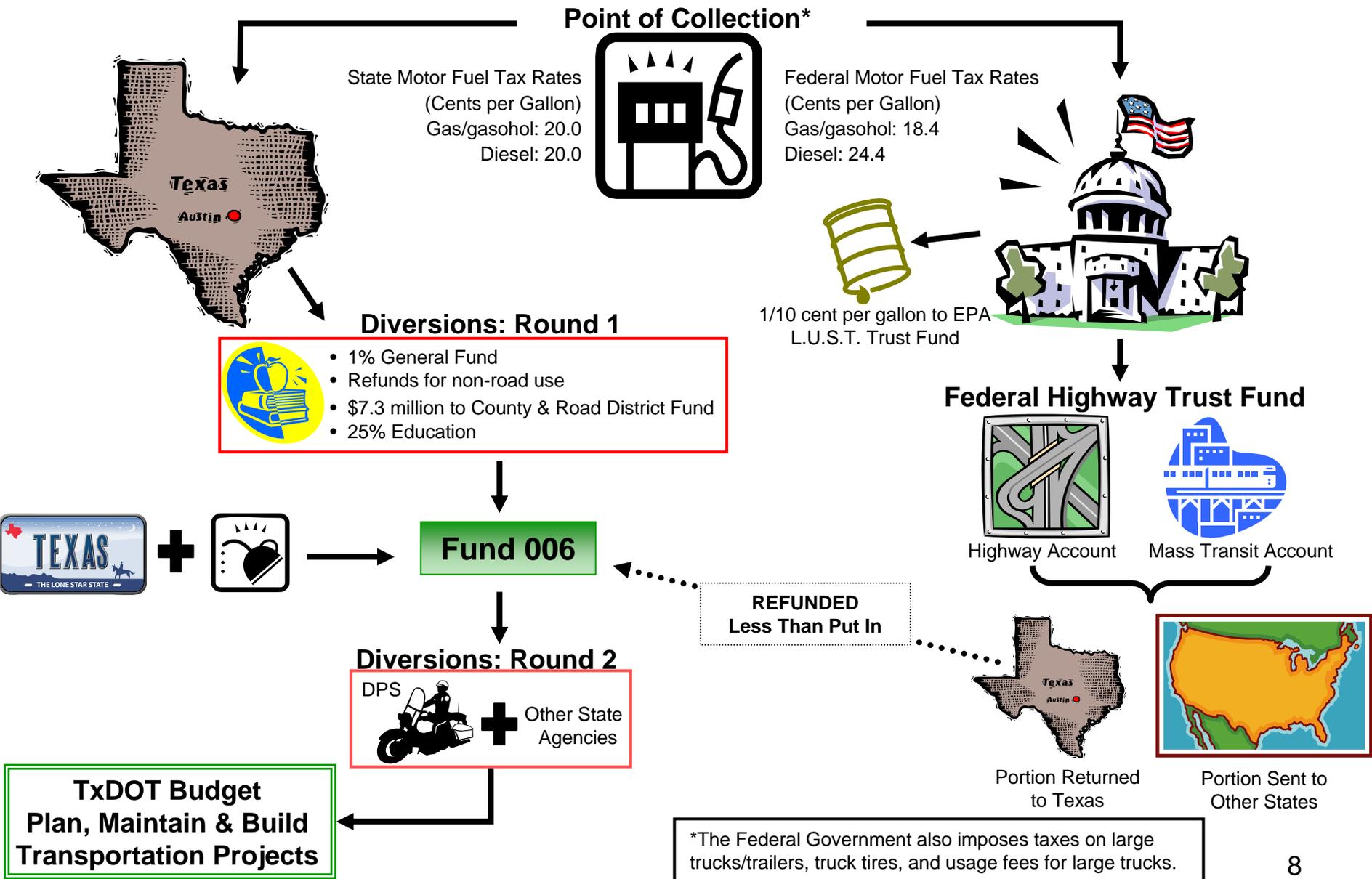
Answer Questions Related To:

- 1 How is Transportation Funded?
- 2 Why Do We Have a Funding Crisis?
- 3 What Options Are Available to Mitigate This Need?

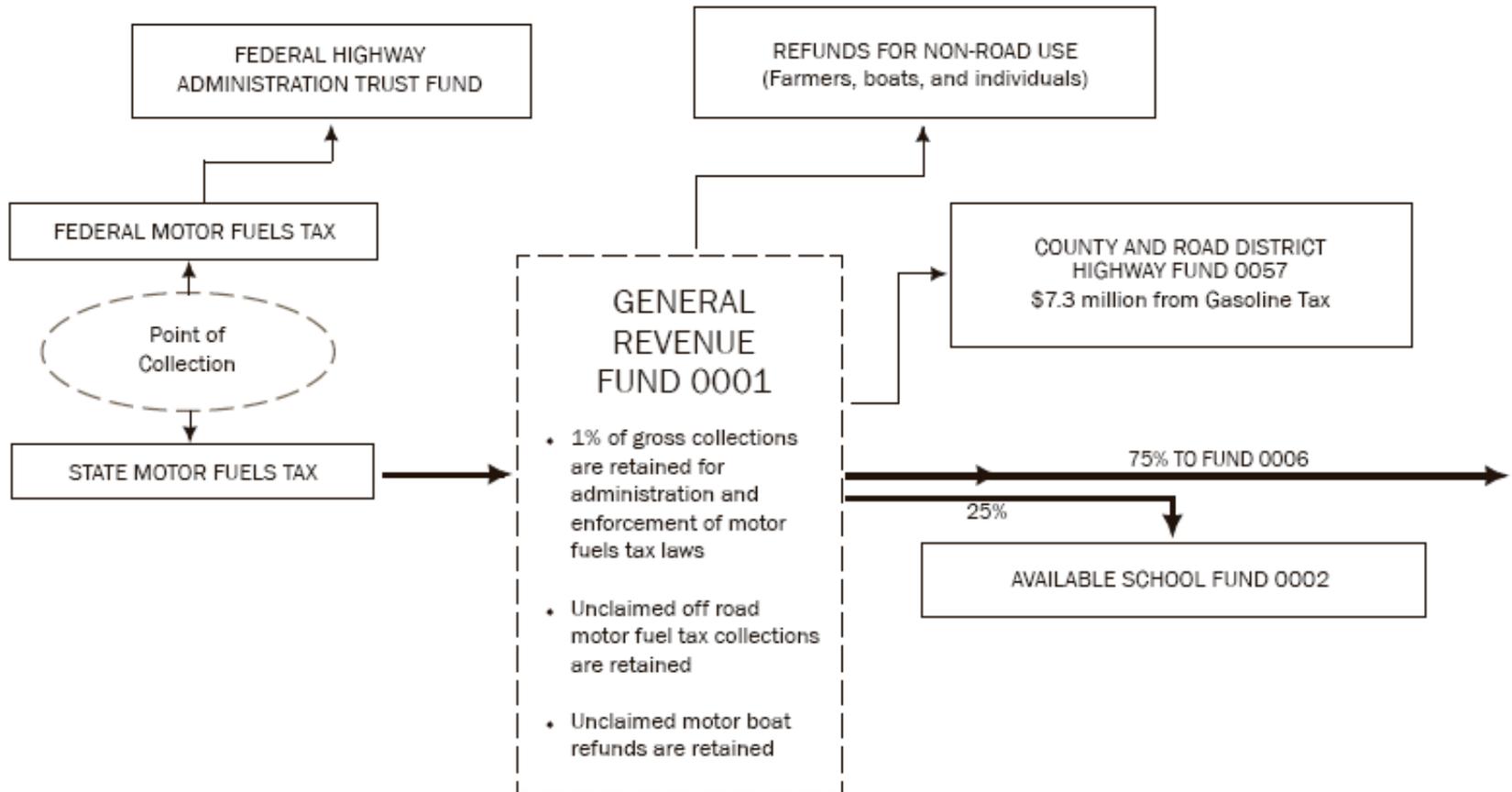
The Transportation Funding Disconnect



Transportation System Funding Basics

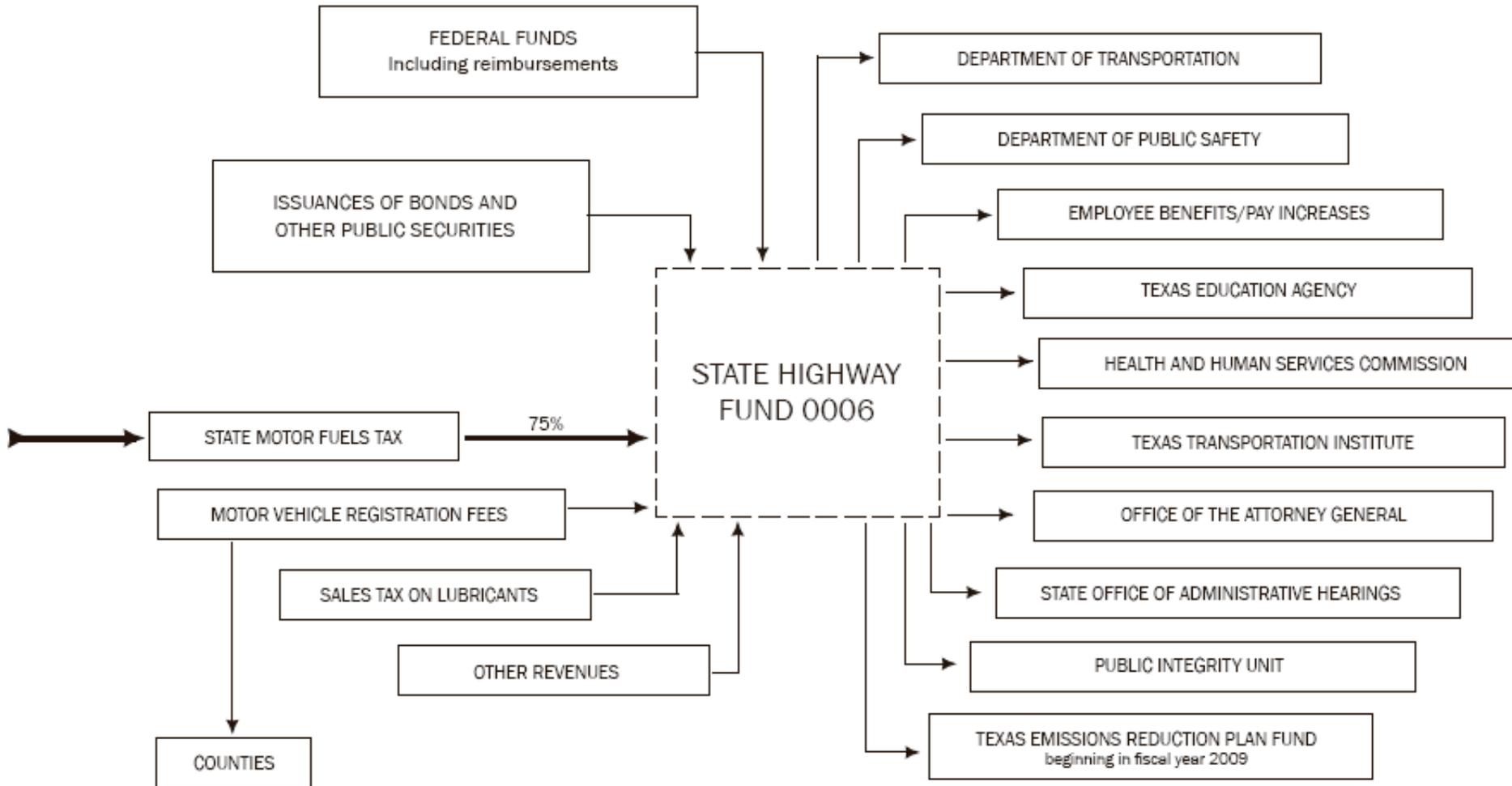


Texas Transportation Funding

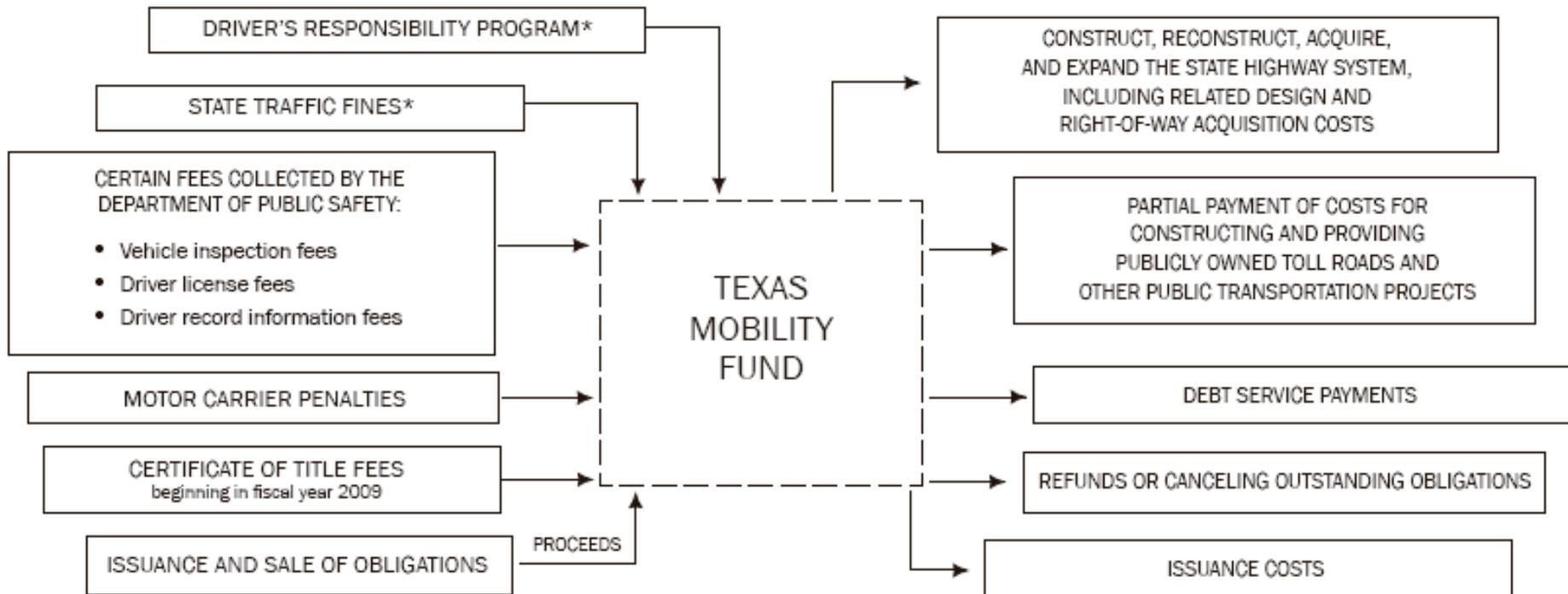


Note: Motor fuel taxes include taxes on gasoline, diesel fuel, and liquid gas.

Texas Transportation Funding



Texas Transportation Funding



What is the Problem?

The Highway Trust Fund

What is the Highway Trust Fund (HTF)?

- Established in 1956
- Functions as an accounting mechanism
 - Cash in: excise tax on motor fuels, trucks, tires
 - Cash out: spending on highway and transit programs
- Made of 2 Accounts
 - Highways
 - Mass Transit
- Spending NOT triggered by the collection of taxes, but instead by the authorization acts that provide budget authority
 - Basically there is an obligation, by law, to spend X annually
- The future status of the HTF is uncertain
 - Changes in oil prices, the economy, fuel efficiency all have major impacts on the HTF

What is the Problem?

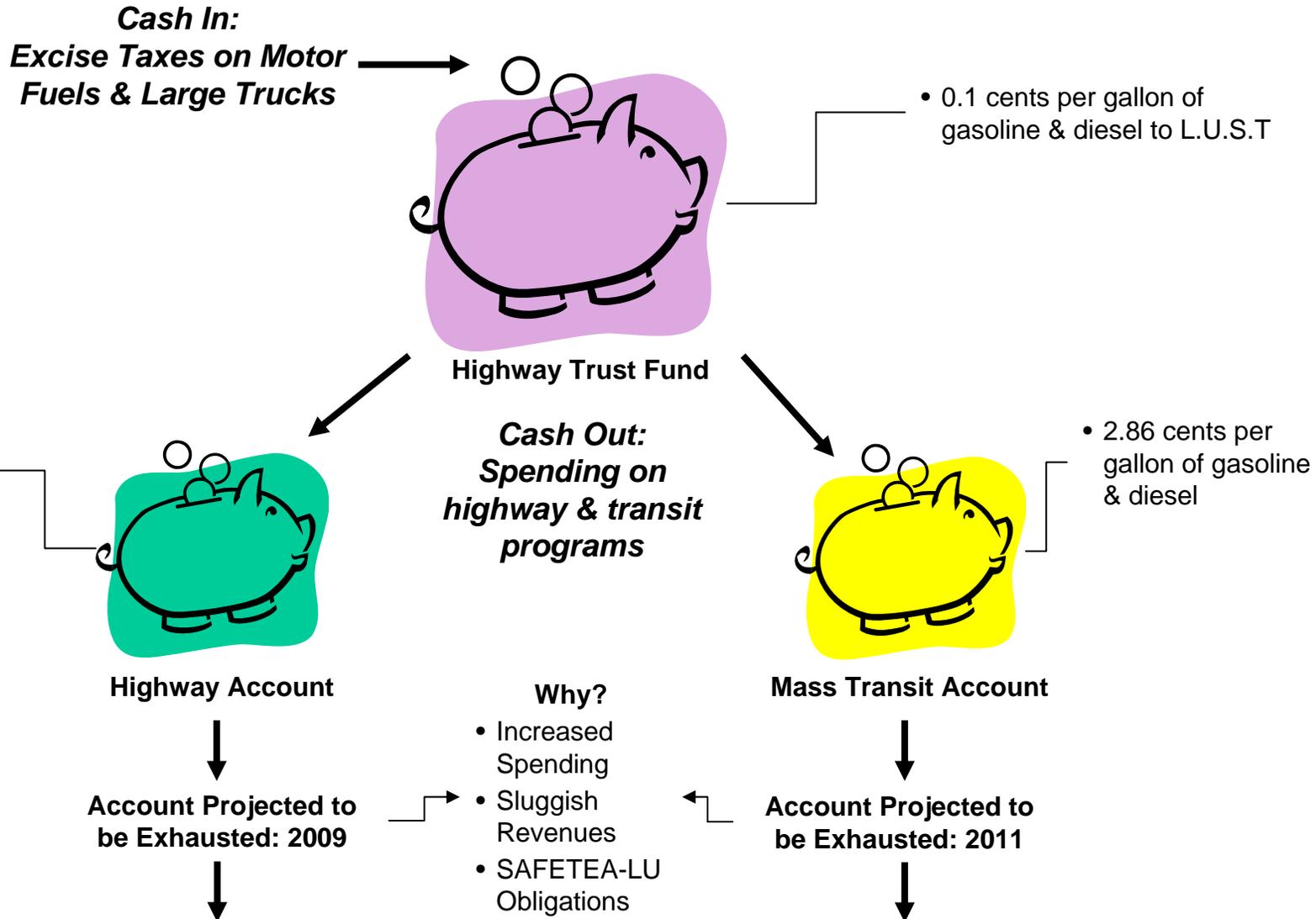
The Highway Trust Fund

Spending down of the HTF

- Revenues increased ~2% annually since 1998
- Spending has increased ~4% annually since 1998
 - Most revenue into the account does not adjust for inflation and has not increased since the 1990's, therefore buying power has decreased significantly
- The highway account is projected to be exhausted in 2009
- The mass transit account is projected to be exhausted in 2011
- This does not mean spending would end...
 - Spending would be limited to revenues coming in
 - Limited funds for new projects
- Since September of 2008, Congress infused the HTF with \$15 billion to keep the account solvent

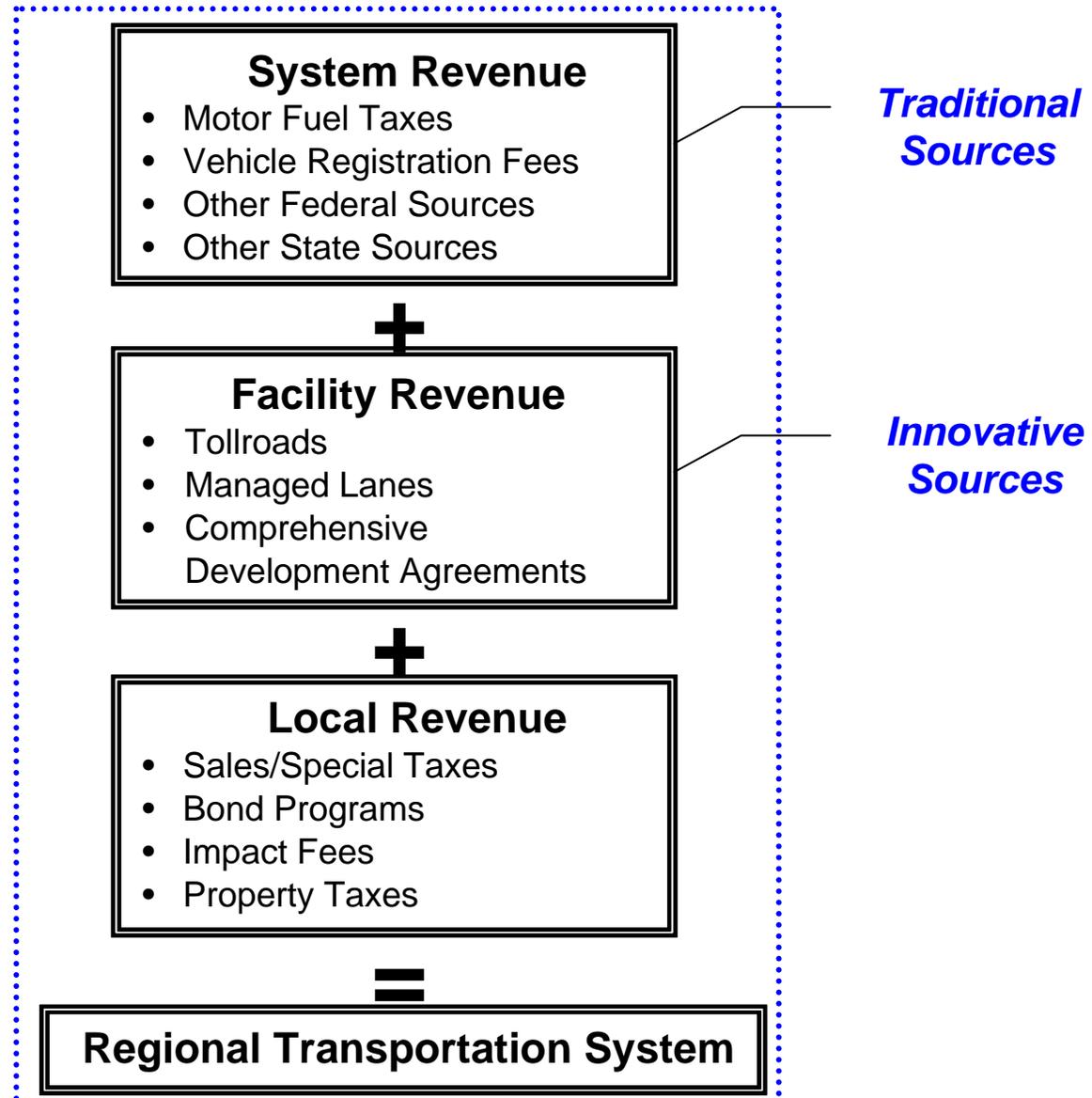
What is the Problem?

The Highway Trust Fund



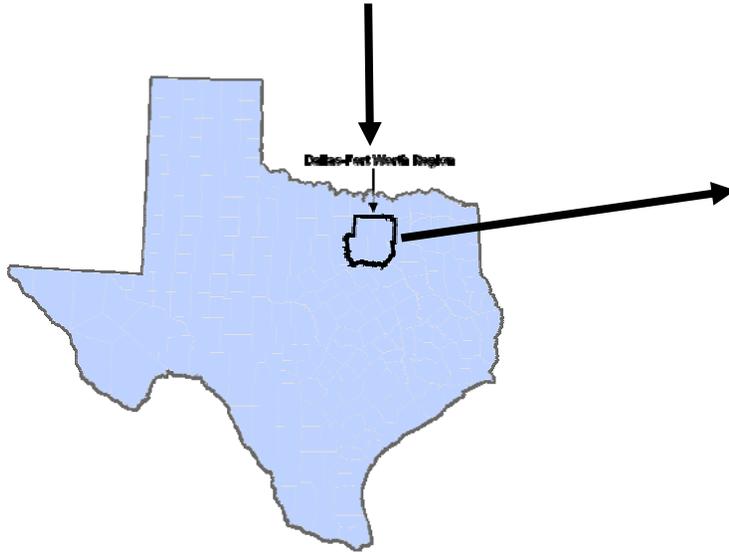
Results: Pay-As-You-Go System with Limited Funds for New Projects

Funding the Transportation System



Transportation System Funding Basics

The DFW Region Receives ~21% of the State's Transportation Funds (Fund 006)

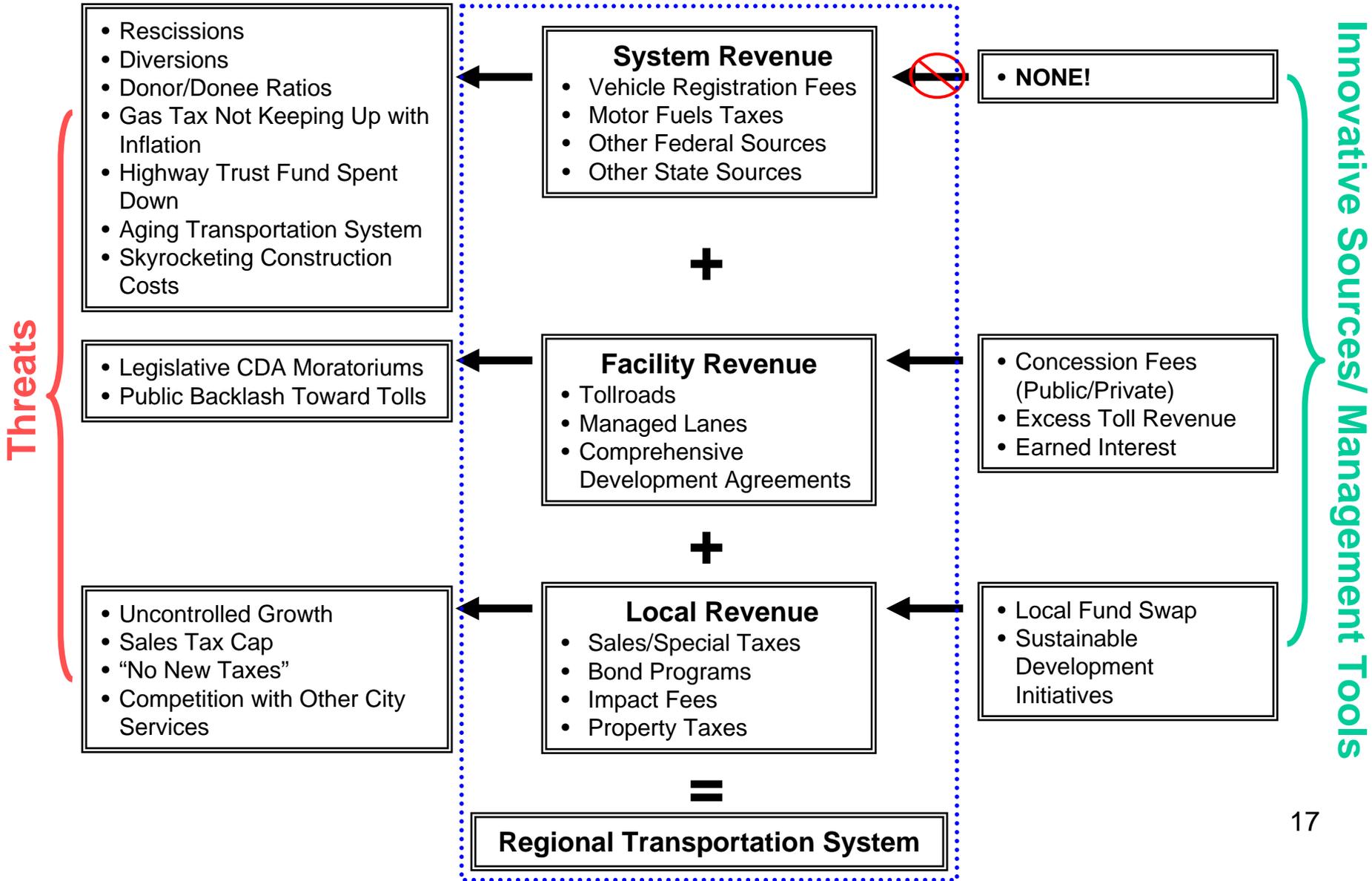


Distribution of Regional Funds:
69% Eastern Sub-Region
31% Western Sub-Region



What is the Problem?

The Transportation Funding Crisis



Need For Innovative Funding in Transportation

Worsening Conditions

FEDERAL

Bankrupt Trust Fund
Rescissions
Falling Gas Tax Revenues
New Fuel Efficiency Standards

STATE

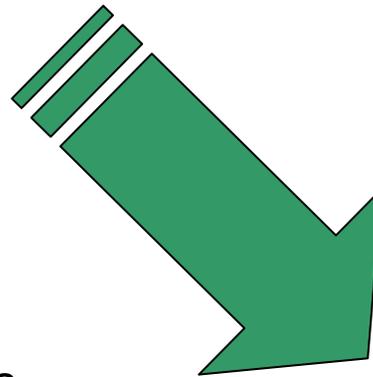
Diversions (35%)
Falling Gas Tax Revenues

LOCAL

Market Conditions Negatively Impact Bonding Capacity
Falling Sales Tax and Property Tax Revenue

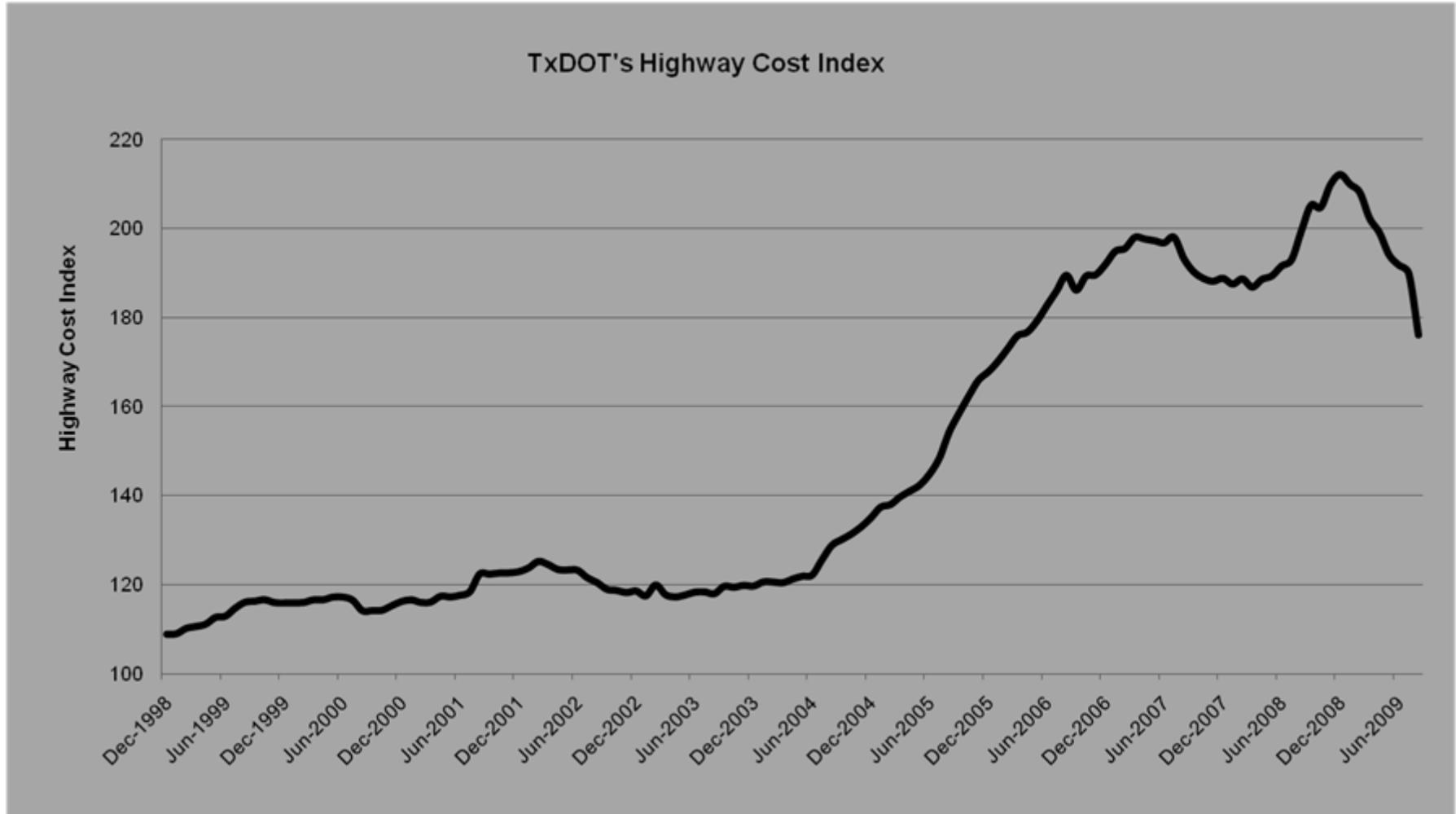
OTHER

Construction Cost Inflation
Aging Infrastructure (46 years old)
Unknown Future of Public/Private Partnerships



What is the Problem?

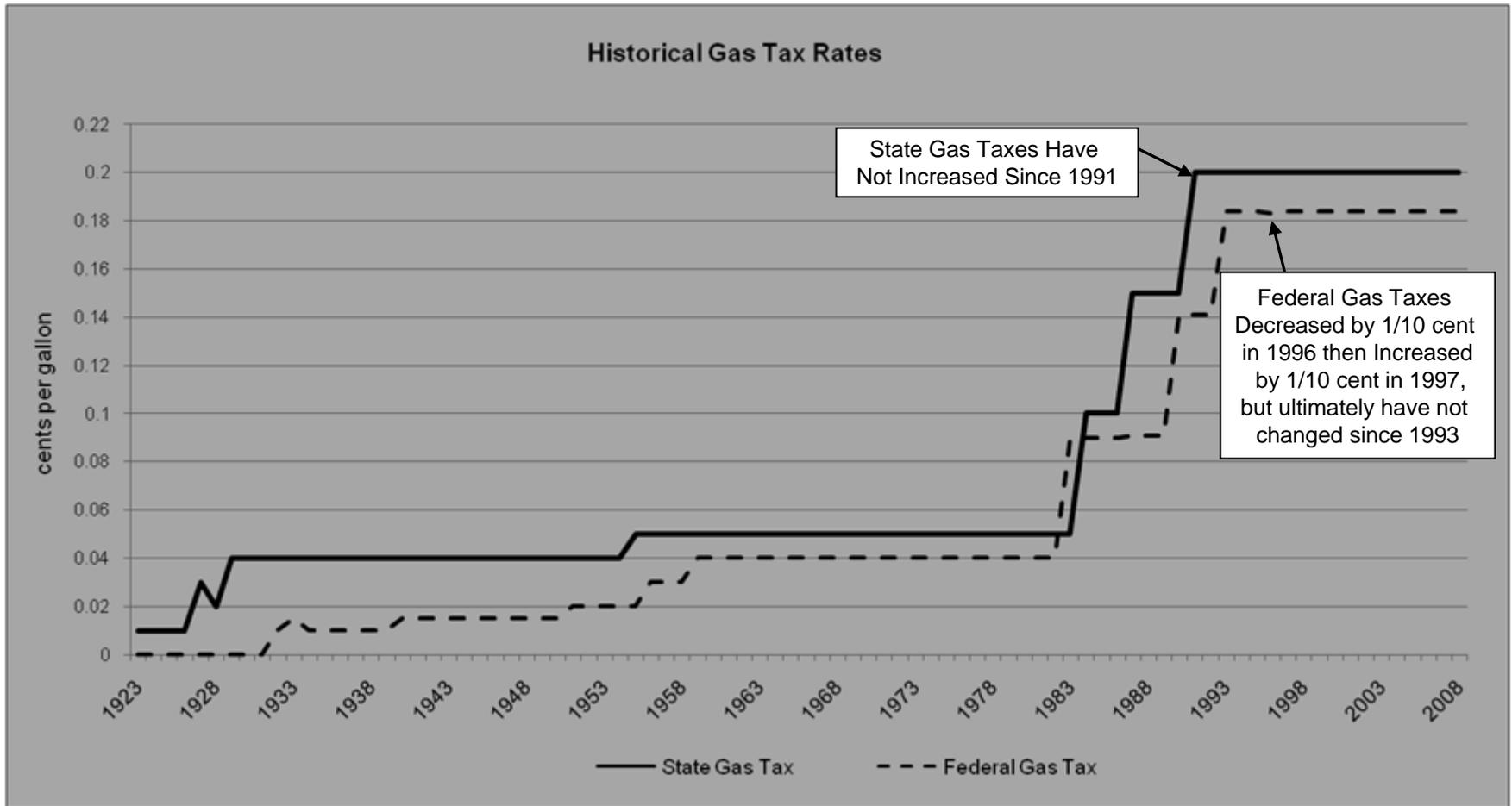
Increased Construction Costs



Construction costs have increased significantly in the last 5 years.

How Did We Get Here?

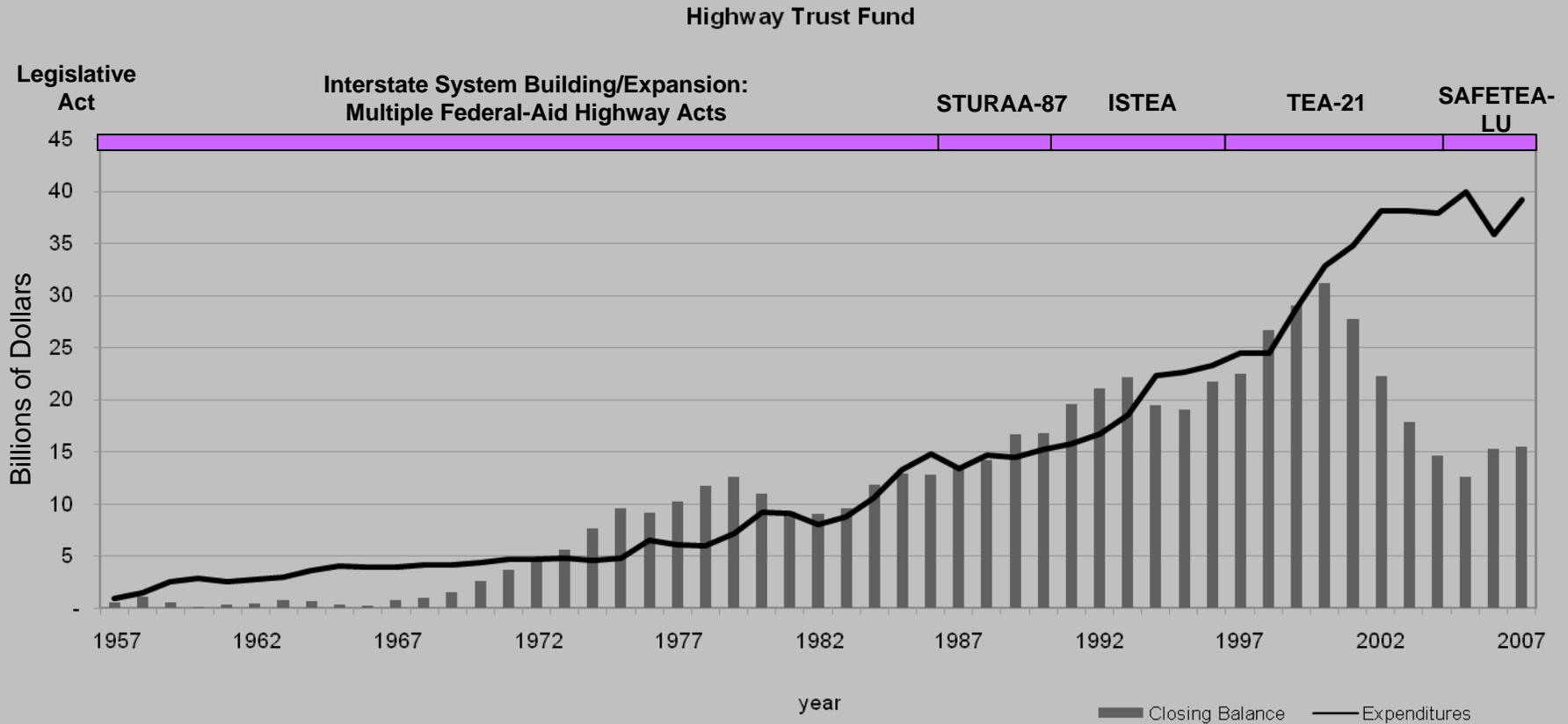
Gas Tax Rates



**Gas taxes are assessed by the number of gallons sold,
NOT by the price of gasoline**

What is the Problem?

The Highway Trust Fund

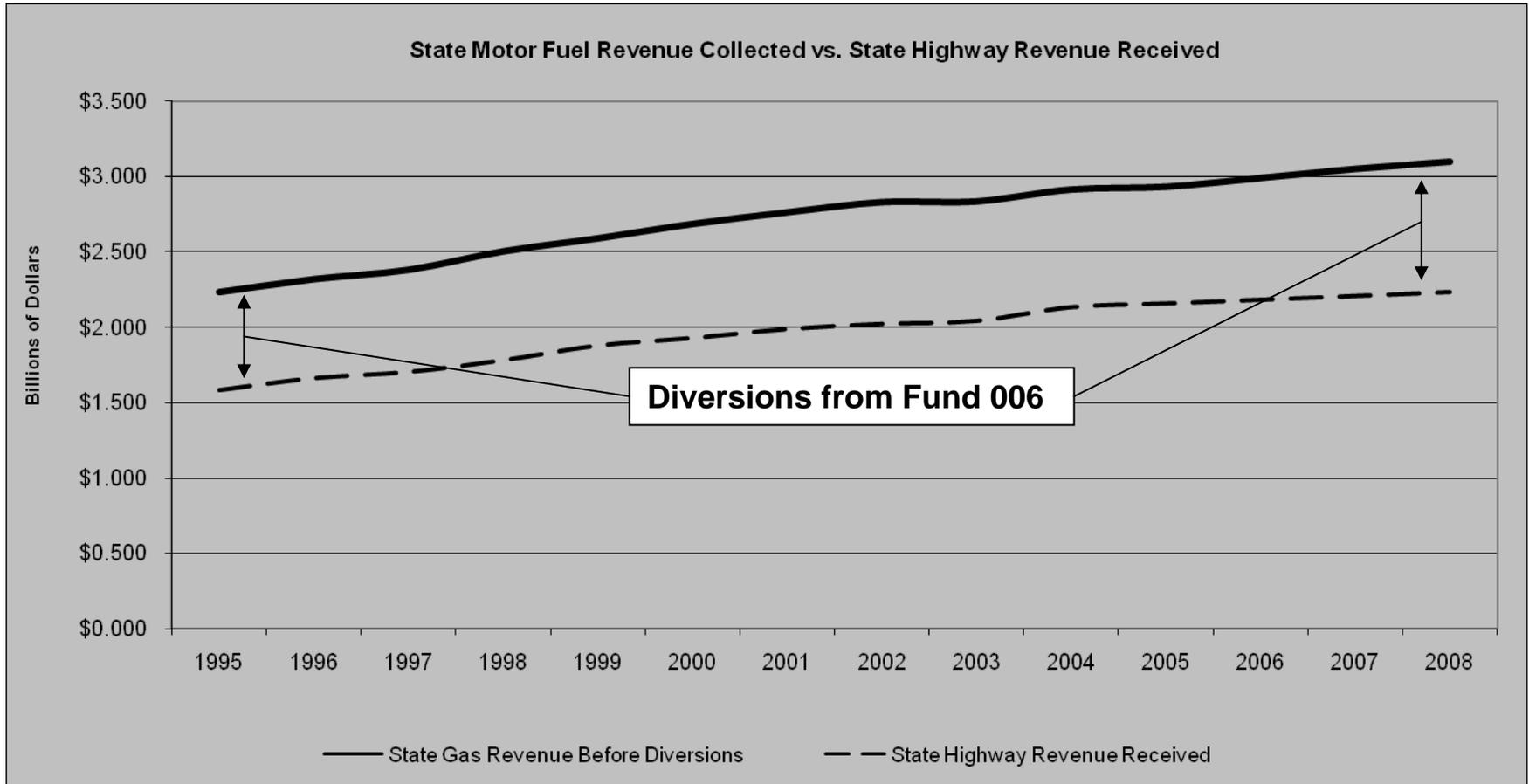


Since September of 2008, Congress has infused the HTF with \$15 billion to keep the account solvent.*

*The official data for years 2008 and 2009 is not yet available.

What is the Problem?

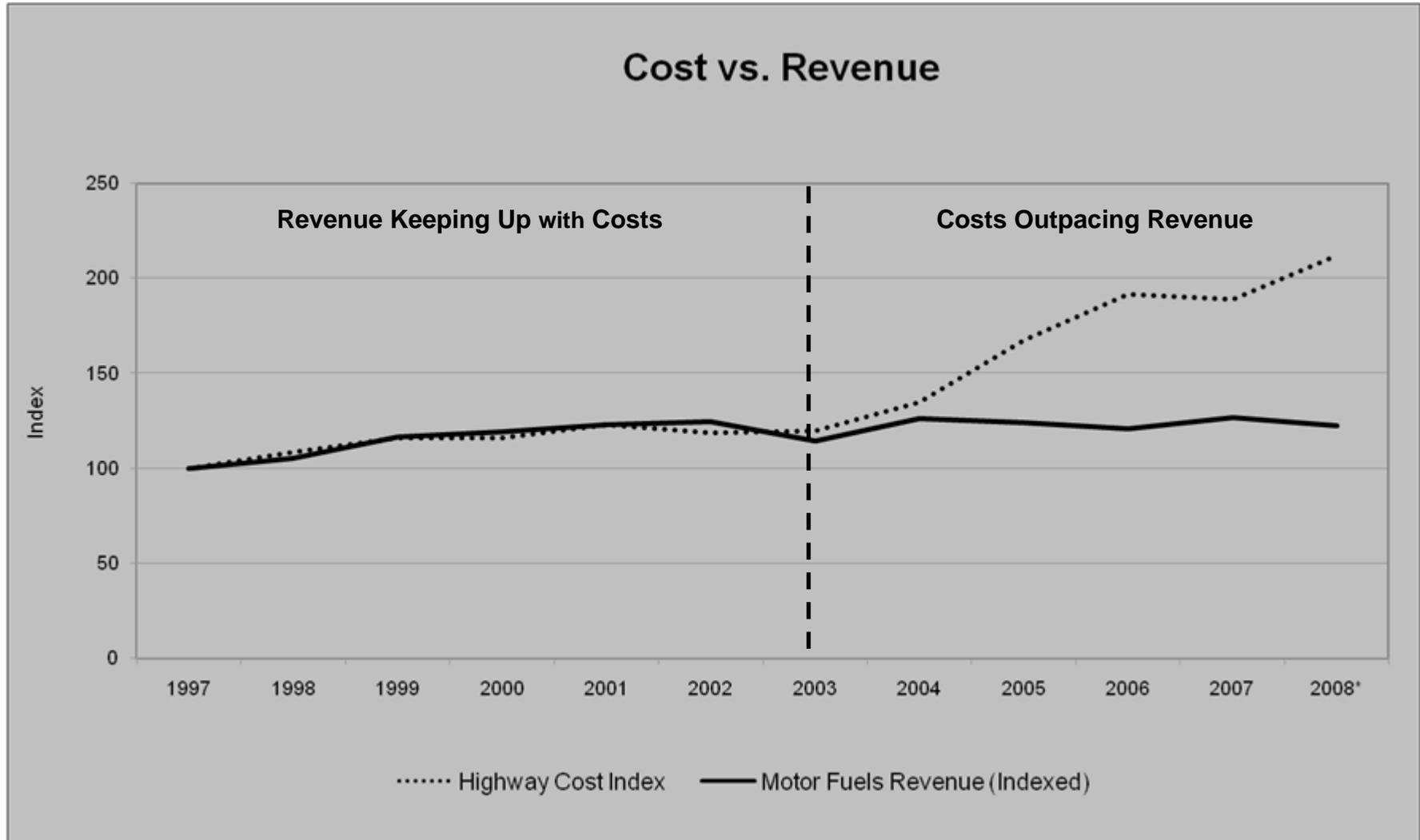
Fund 006 Diversions



**Texas diverts 34.7% of highway revenue to other uses
- the third highest rate in the nation.**

What is the Problem?

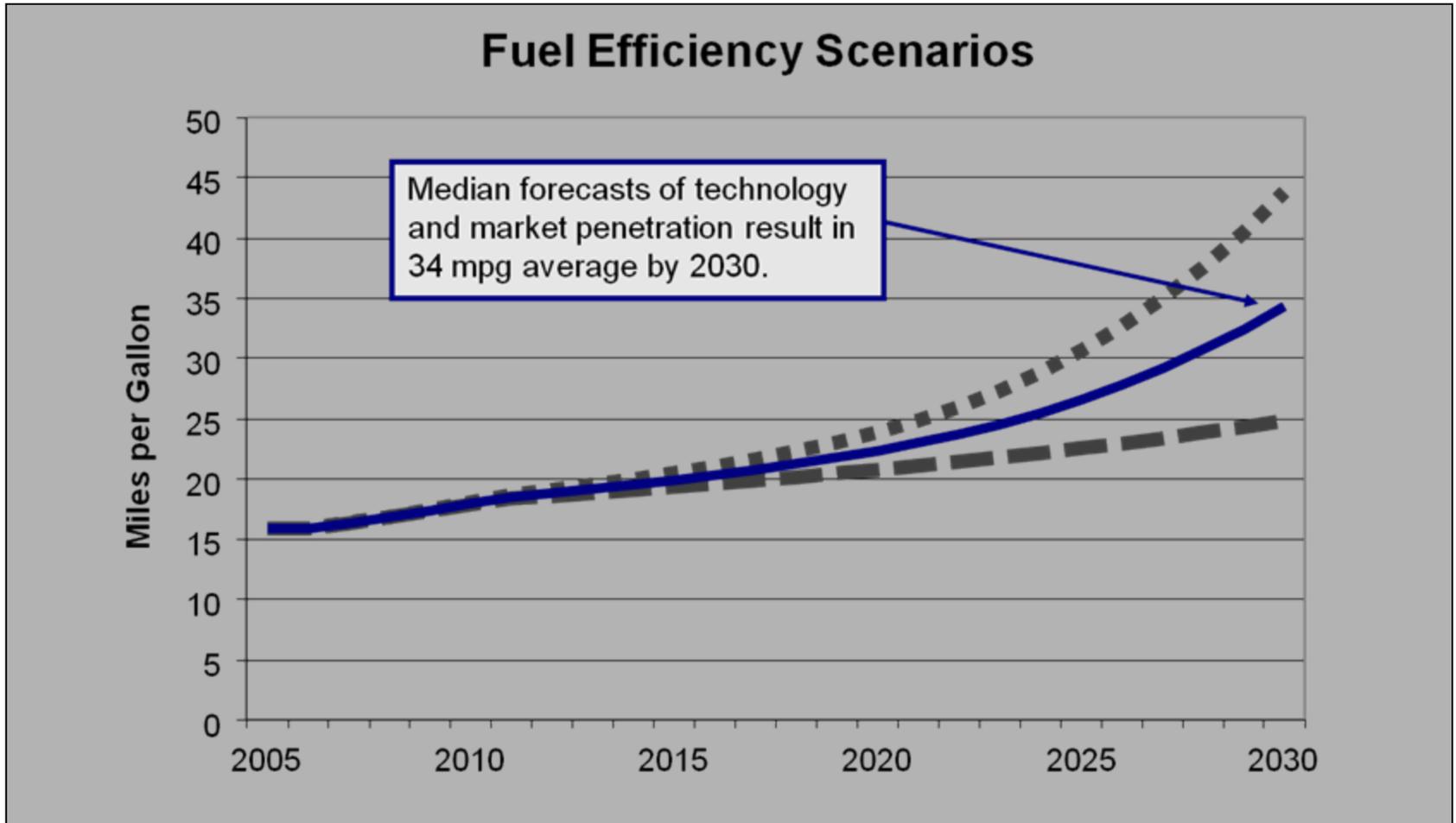
Stagnant Revenue Sources



* Motor Fuels Revenue Value is estimated for 2008.

What is the Problem?

Stagnant Revenue Sources



What is the Problem?

Competing Public Values/ Misc. Issues

Aging System/ Maintenance

Since 2003 the cost to maintain the existing transportation system has surpassed state gas tax receipts- zero dollars of state gas tax money goes to new highway construction.

source: TxDOT

Alternative Fuel Use

There are many benefits to using alternative fuel sources, however, as they become more prevalent, revenues collected from traditional fuel sources could see a significant reduction.

Decreased Travel

There are a number of benefits to decreasing the number of trips made, however, as fewer trips are made, less fuel is consumed resulting in less revenue.

Improved Fuel Efficiency

Improved fuel efficiency has several important benefits, however, as less fuel is consumed less revenue is collected.²⁵

What is the Problem?

The Transportation Funding Crisis

Issues Facing Texas

- Donor state
- Diversions
- State gas tax have not increased since 1991
- Gas tax not indexed
- Vehicle Registration Fees
- Special Local Taxes/Fees



Issues Facing Everyone

- Aging System
- Trust Fund Spent Down
- Federal gas tax have not increased since 1993
- Fuel Efficiency?
- Alternative Fuels
- Construction Costs



FUNDING SHORTFALLS!

Texas Metropolitan Mobility Plan (TMMP)

- Plan Developed for Large Metropolitan Areas in Texas (Pop. > 200,000)
- Focuses on Need to Eliminate the Worst Levels of Congestion
- Is **NOT** Financially Constrained

Current Value

Adjusted for Inflation

Metropolitan Transportation System Components	Funded Needs (Billions/2009 Dollars)	Unfunded Needs (Billions/2009 Dollars)
Operation & Maintenance	\$20.6	
Congestion Mitigation Strategies	\$2.3	
Bicycle & Pedestrian Facilities and Transportation Enhancements	\$1.2	
Rail and Bus Transit System	\$12.1*	
HOV and Managed Facilities	\$3.6	
Freeway and Toll Road System	\$29.2	\$14
Regional Arterial and Local Thoroughfare System	\$6.3	\$6.6
Additional Cost to Purchase Right-of-Way		\$1.2
Rehabilitation Costs	\$2.9	\$35.4
Goods Movement/Rail Freight Costs		\$7.4
TOTAL	\$78.3	\$64.6
	\$142.9 Billion	

Metropolitan Transportation System Components	Funded Needs (Billions/Actual Dollars)	Unfunded Needs (Billions/Actual Dollars)
Operation & Maintenance	\$31.8	
Congestion Mitigation Strategies	\$3.1	
Bicycle & Pedestrian Facilities and Transportation Enhancements	\$2.1	
Rail and Bus Transit System	\$24.3*	
HOV and Managed Facilities	\$7.4	
Freeway and Toll Road System	\$59.5	\$17.1
Regional Arterial and Local Thoroughfare System	\$12.9	\$11.1
Additional Cost to Purchase Right-of-Way		\$2.0
Rehabilitation Costs	\$4.4	\$55.4
Goods Movement/Rail Freight Costs		\$12.4
TOTAL	\$145.5	\$98.0
	\$243.5 Billion	

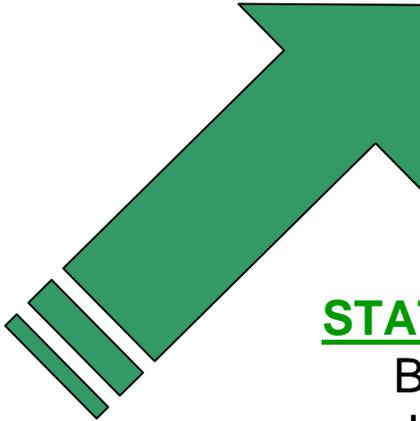
*Includes funding from local transit initiatives.
 Values may not sum due to independent rounding.
 Values based on 2006 TMMP and adjusted to Mobility
 2030 – 2009 Amendment.

What is the Problem?

Summary

- **Significant inflation in construction materials**
- **Revenue sources that have not kept up with inflation or increased in many years**
- **Rescissions for the federal government**
- **Diversions of funds to non-transportation accounts**
- **Texas is a donor state- not receiving back 100% of what it contributes**
- **Reliability of the Highway Trust Fund**

Life Preserver Options



FEDERAL

New Infrastructure Program
National Energy Policy

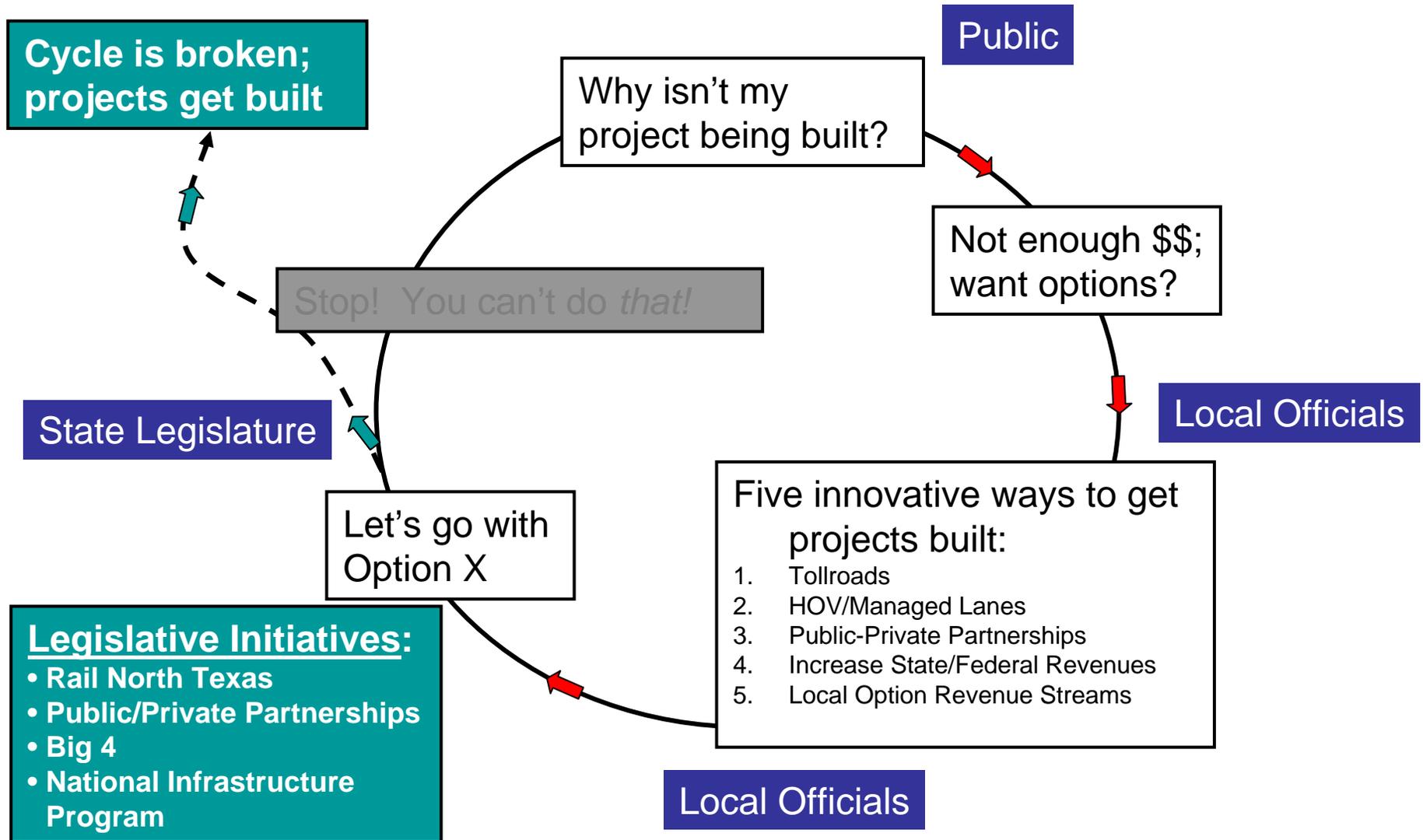
STATE

Big 4: Constitutional Amendment, Stop Diversions,
Index Fuel Tax, General Revenue Proposition 12 Bonds
Support Rail North Texas and Local Option Elections
Recommit to Public-Private Partnerships
Index Fuel Tax for Fuel Efficiency

LOCAL

NTTA Builds Traditional Tollroads
TxDOT Builds Managed Lanes
Partnership Builds Regional Loop

The Transportation Funding Cycle: New Partnerships



Minimum State Revenue Initiatives:

Stop The Bleeding

1. **Stop Diversions**
2. **Index Fuel Tax (2)**
3. **Bond Transportation From General Fund**
4. **Recommit To Public-Private Partnerships (i.e. Innovative Finance) Within Metropolitan Regions**
5. **Local Option Revenue Menu**

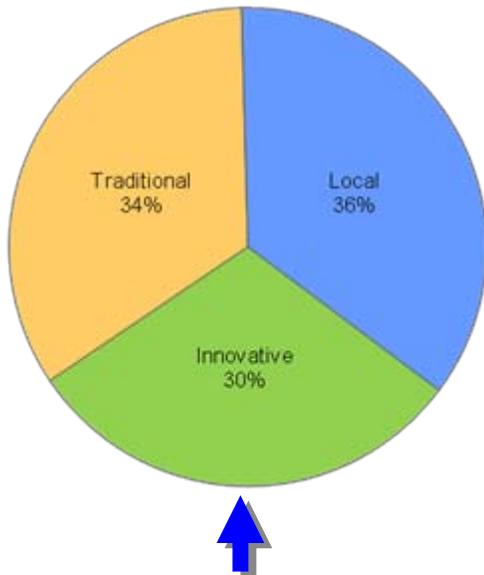
Solutions

Innovative Finance

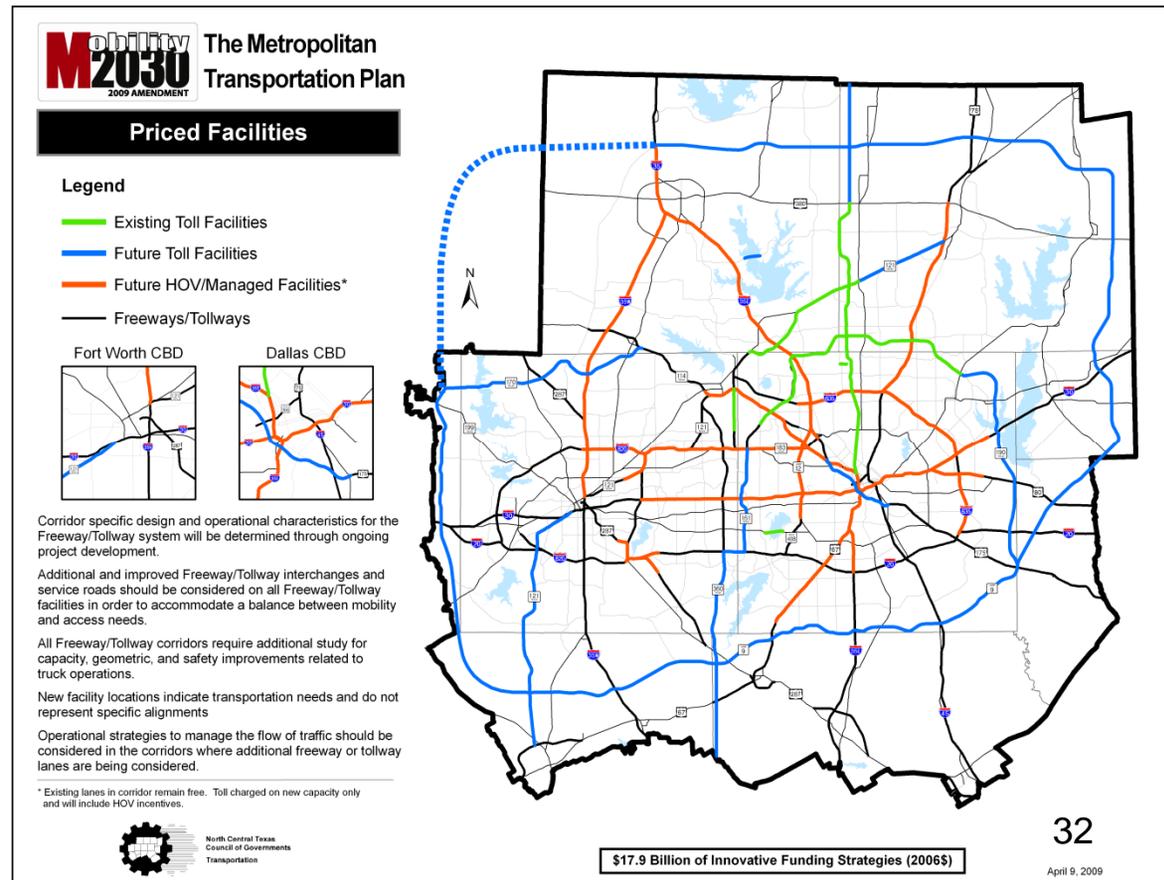
Innovative Finance is an alternative way to fund transportation projects

- Tollroads
- HOV/Managed Lanes
- Public-Private Partnerships
- Comprehensive Development Agreements

Mobility 2030 – 2009 Amendment Funding



The DFW region relies heavily on revenue from innovative finance



Why Innovative Finance Is Important

Gas Tax

Rule #1 – Law of Allocation

Rule #2 – Law of Inflation (Costs Rising Faster than Revenues)

Rule #3 – Law of Silos

Toll Financing

Rule #1 – Law of Competition (Leveraging Innovation, Partnership, Risk/Reward)

Rule #2 – Law of Immediacy

Rule #3 – Law of Fungibility

Solutions Summary

- Innovative finance allows needed transportation projects to be built that otherwise would be left unfunded
- The way in which transportation projects are developed and funded has to change to ensure...
 - needed projects can be built in a timely manner
 - that resources will be available long into the future
- Changes to the way people view and use the system are vital to its future success
 - A solution does not exist that is “free”

Solutions

A Change in the Status Quo

A major overhaul of how transportation projects are funded

A major overhaul of transportation project development

Cut red tape to get needed projects on the ground faster

Streamlining

Policy shifts

New or increased fees

Management & Operations

Partnerships

Change the way people think about transportation

Behavior Changes (i.e., linking trips, trip reduction)

Carpooling/Vanpooling

Using Alternative Forms of Transportation